



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.				
10/679,391	10/07/2003	Jong-Su Lim	44824	5463				
<div>Peter L. Kendall⁷⁵⁹⁰ Roylance, Abrams, Berdo & Goodman, L.L.P. Suite 600 1300 19th Street, N.W. Washington, DC 20036</div>								
<div>EXAMINER DEBNATH, SUMAN</div>								
<table border="1"><thead><tr><th>ART UNIT</th><th>PAPER NUMBER</th></tr></thead><tbody><tr><td>2435</td><td></td></tr></tbody></table>					ART UNIT	PAPER NUMBER	2435	
ART UNIT	PAPER NUMBER							
2435								
<table border="1"><thead><tr><th>MAIL DATE</th><th>DELIVERY MODE</th></tr></thead><tbody><tr><td>01/15/2009</td><td>PAPER</td></tr></tbody></table>					MAIL DATE	DELIVERY MODE	01/15/2009	PAPER
MAIL DATE	DELIVERY MODE							
01/15/2009	PAPER							

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No. 10/679,391	Applicant(s) LIM, JONG-SU
Examiner SUMAN DEBNATH	Art Unit 2435

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 12 December 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: None.
Claim(s) objected to: None.
Claim(s) rejected: 1-12.
Claim(s) withdrawn from consideration: None.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.
13. ☐ Other: _____.

/Kimyen Vu/
Supervisory Patent Examiner, Art Unit 2435

Continuation of 11, does NOT place the application in condition for allowance because: Applicant's arguments filed December 12, 2008, have been fully considered but they are not fully persuasive.

Applicant argues that: "...the sub-bit stream described in DKS do not have the same length. Accordingly, DKS is not analogous to claim 1, which recites dividing a first plaintext bit stream of length $2n$ into first and second sub-bit streams of length n and dividing a second plaintext bit stream of length $2n$ into third and fourth sub-bit streams of length n ."

In response to applicant's arguments, the recitation "dividing a first plaintext bit stream of length $2n$ into first and second sub-bit streams of length n and dividing a second plaintext bit stream of length $2n$ into third and fourth sub-bit streams of length n " has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Furthermore, it should be noted that KASUMI algorithm can be used for a long string (i.e. plaintext) which can be divided into multiple of $2n$ bits. FIG. 1 of DKS uses 64 bits (i.e. $2n$) as an input and divides into two sub-bit streams of length (i.e. n).

Applicant argues that: DKS does not teach "outputting the second ciphertext bit stream encrypted again with a predetermined time delay."

Examiner maintains that: DKS teaches outputting the second ciphertext bit stream encrypted again with a predetermined time delay (FIG. 2, FIG. 6, page 12, section 4.3, predetermined time delay always takes place wherever there is a requirement to synchronize two inputs to compute an "exclusive OR" functions. For instance, there are multiple "exclusive or" and FI functions within FO function (see FIG. 6 of DKS), thus output from FI sub I, 1 is an input to an "exclusive OR" function but another input come from right side which doesn't require any computation. Therefore, there will be a predetermined time delay before both bit streams can be used to an "exclusive OR" function. Applicant should not that claim language is broad enough to interpret that output of FI sub I, 1 is an input to FI sub I, 2 which is encrypted again with predetermined time delay).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, motivation for the rejections is found both in the knowledge generally available to one of ordinary skill in the art and in the cited references.

Applicant argues that: "...it is not possible to make the alleged combination because, in DKS, the FO function is recursive and required the first ciphertext bit stream in order to complete the second alleged round."

Applicant should note that it is well known to run two hardwires or cipher unit in parallel to increase the speed. Furthermore, DKS teaches the operation of FO cipher unit and Lee teaches two functions combined to run in parallel.

Examiner's note: Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the Applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may be applied as well. It is respectfully requested from the Applicant, in preparing the responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention as well as the context of the passage as taught by the prior art or disclosed by the Examiner.